PDS Label Assistant for Interactive Design (PLAID): Simplifying PDS4 Label Template Building

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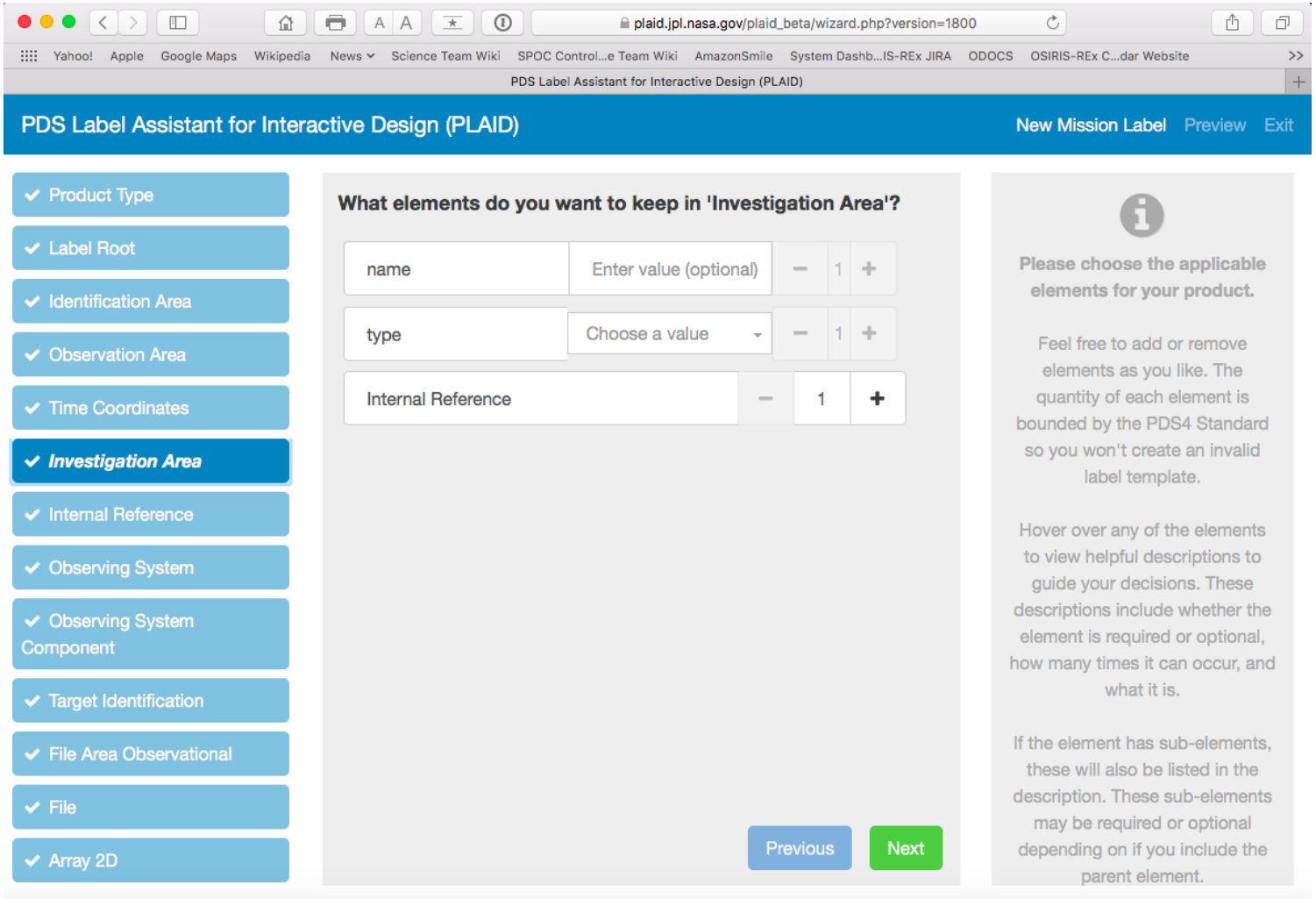
Why PLAID?

- Building PDS4 templates require knowledge of XML and the PDS4 data dictionaries, both of which are non-trivial to learn.
- The PDS4 rules and dictionaries are constantly changing. The PDS4 data provider handbook is 126 pages.
- Missions have limited time and budgets for designing their PDS4 labels.
- Previous tool was too complex and allowed users too many opportunities to make invalid labels. Needed something simpler and more user friendly.

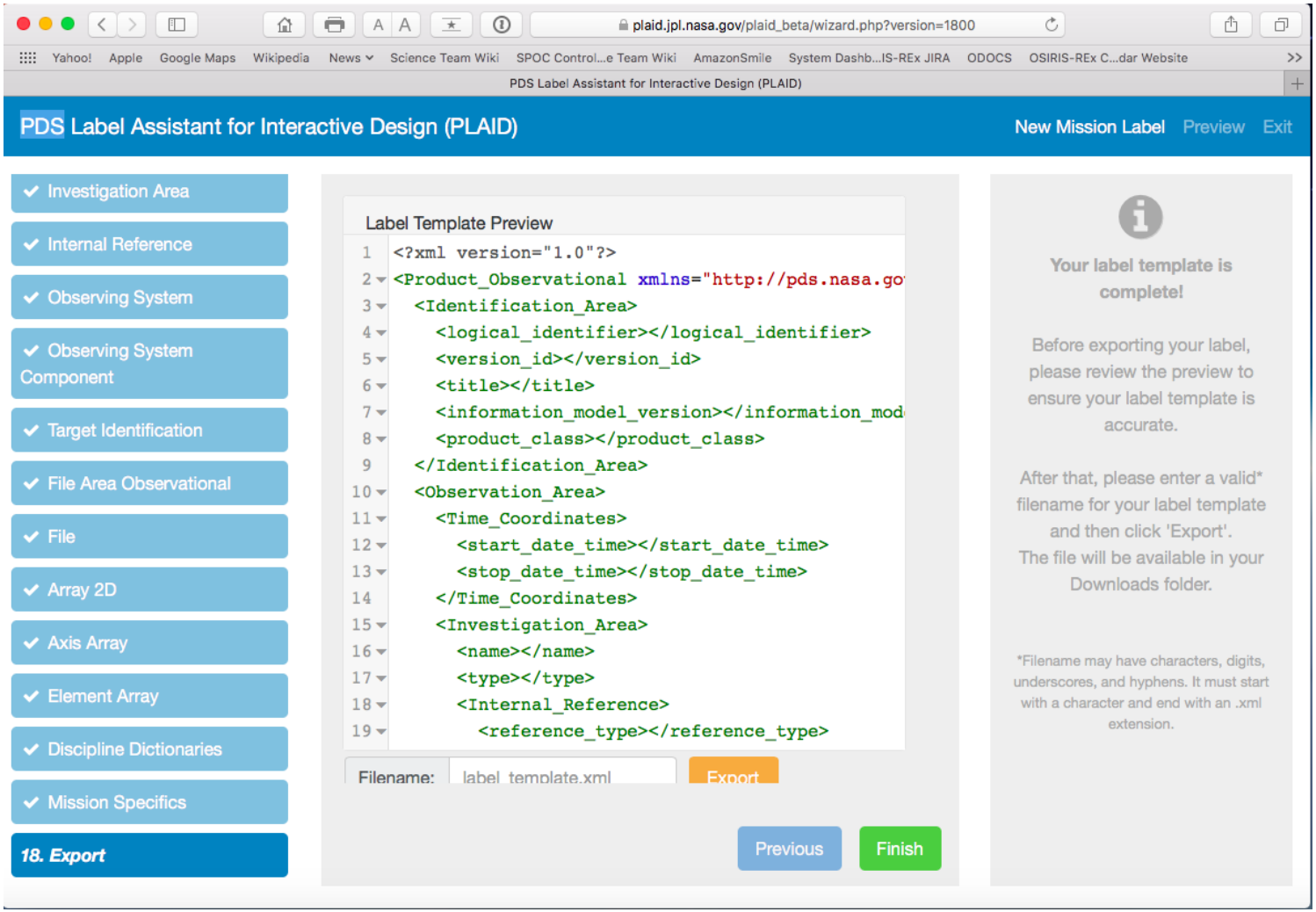
PLAID Implementation

- Web based ”wizard” step by step tool where users build PDS4 label template with a GUI.
- At each step users are only allowed to add or remove elements of the label based on PDS4 rules.
- As a result users cannot build invalid label structures.
- What is allowed and restricted at each step of the label is provided in-line.
- Descriptions of attributes and classes in the label are pulled directly from the PDS4 definitions.

PLAID Tool



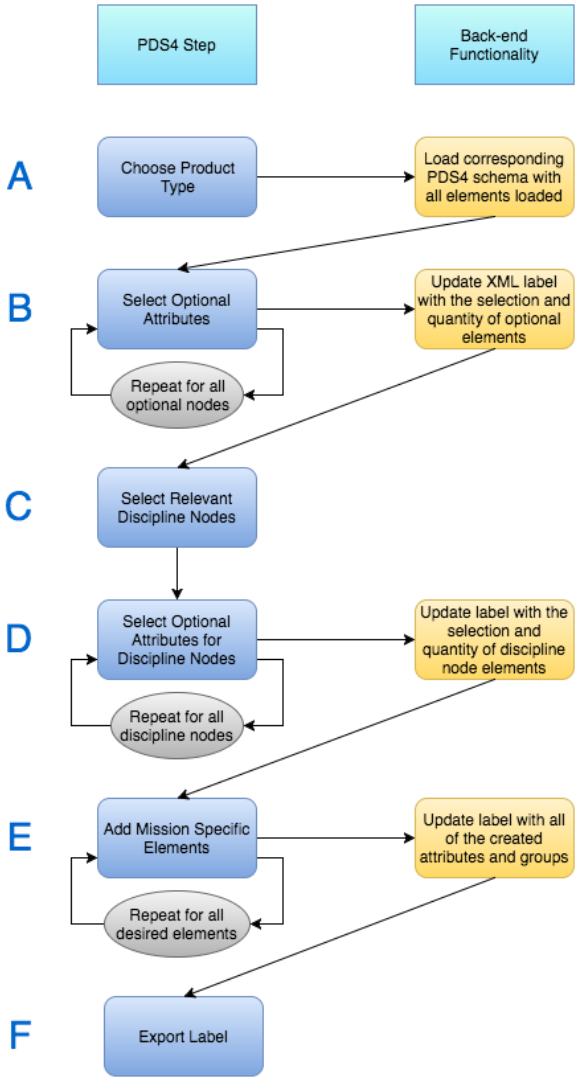
PLAID Tool



PLAID Design

- Tool is hosted at JPL and anyone can create an account and get started on a PDS4 label template
  - https://plaid.jpl.nasa.gov/
- Code is open sourced and anyone can contribute or deploy on their own machine. The more the better!
  - https://github.com/nasa-pds/PLAID

PLAID High Level Design



PLAID Software Used

- Front-end:
  - HTML/CSS
  - Javascript
  - jQuery
  - jQuery-Steps
  - Twitter Bootstrap
  - Font-Awesome
  - jqTree
- Backend:
  - PHP, LDDTool output
- Database:
  - MySQL
- Tools:
  - PHPStorm
  - Apache httpd
  - MySQL Workbench
  - Git

PLAID Development

- PLAID Features in development:
  - Starter label templates
  - Start a label from an excel document for batch editing
  - Automated filling in of values based on previous selections/questions
  - Best practices provided in-line
  - Enhanced mission attribute and classes support
  - Sharing of labels between users and label collaboration.
- We are interested in your feedback and what you'd like to see added to the tool.

PLAID Demo and Workshop

- Demo today at 2:45pm in Agassiz Room
- Workshop Wednesday(Fremont room) and Thursday (Agassiz room). Please come by to learn more about PDS4 and PLAID
  - We will be building PDS4 labels on Wednesday.
  - We will be giving examples of converting PDS3 labels to PDS4 Thursday morning for tasks such as PDARTS (Planetary Data Archiving, Restoration, and Tools – requires products to be delivered in PDS4 even if they're from PDS3 sources).

Contacts

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Questions?